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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,752	12/04/2003	Loren Dean	MWS-034	3180
959 7590 09/20/2007 LAHIVE & COCKFIELD, LLP ONE POST OFFICE SQUARE BOSTON, MA 02109-2127			EXAMINER TRUONG, LECHI	
			ART UNIT 2194	PAPER NUMBER
			MAIL DATE 09/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/729,752

Applicant(s)

DEAN ET AL.

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 10-46 is/are pending in the application.
- 4a) Of the above claim(s) 7-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON  
SUPERVISORY PATENT EXAMINER

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant's election without traverses of the invention of group I (claims 1- 6, 10-46) in the reply filed on 07/03/2007 is acknowledged. Claims 7-9 are required to cancel.

#### *Claim Rejections - 35 USC § 102*

2. Claims **1-6, 10-14, 19-25, 30, 32-42** are rejected under 35 U.S.C. 102(b) as being anticipated by Brumley et al (US Patent 5,926,775).

As to **claim 1**, Brumley teaches an electronic device (the computer 102 running an operating system... provide field electrical, col 5, ln 33-38), an image acquisition device, a DAQ device, col 5, ln 33-38), the electrical device independent of an interface protocol of the image acquisition device (the generic functionality which is generic to or independent of a number of DAQ devices or boards, i.e., is independent of a family of devices, col 9, ln 34-38/ plurality of mini-driver primitives each perform a portion of controlling the DAQ device, i.e., each of the plurality of mini-driver primitives perform operations to control specific resources of the DAQ device, col 3, ln 65-67 to col 4, ln 1-3/ The interpreter operates to configure device family independent or hardware independent features , for each device, col 4. ln 20-25), a request from the user ( calls from the DAQ user application, col 3, ln 7-9), receiving a request from a requester to access the image acquisition device, col 3, ln 7-9/ col 27, ln 20-25), accessing a feature of the image acquisition device using the communication channel( col 6, ln 1-5).

**As to claim 2**, Brumley teaches the request specifies a format for a response from the image acquisition (col 10, ln 56-67).

**As to claim 3**, Brumley teaches communication with an interface of the image acquisition device to establish communication (col 11, ln 31-36), establishing one or more communication procedures between the requester and the image acquisition device (col 11, ln 31-37), the communication procedures providing instruction on how data transfers are managed between the requester and the image acquisition device across the communication channel (col 27, ln 24-34).

**As to claim 4**, Brumley teaches the one or more communication procedures provides instructions for at least one of, logging data to file, buffering data received from the image acquisition device, generating events, and translating error codes from the image acquisition device (col 3, ln 14-20).

**As to claim 5**, Brumley teaches the requester is received from a user interface (col 3, ln 9-13).

**As to claim 6**, Brumley teaches user interface comprises an object-based interface having methods and attributes (col 13, ln 21-30).

**As to claim 10**, it is an apparatus claim of claim 1; therefore, it is rejected for the same reason as claim 1 above. In additional, Brumley teaches a first communication link between a user of the electronic device and an image acquisition engine (the interpreter performing DAQ driver level functions in response to receiving the call from the DAQ user application, col 27, ln 60-65), establishing a second communication link between the image acquisition engine and an interface of the selected image acquisition device (the interpreter generating calls to a plurality of

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mini-driver primitives in response to receiving the call from the DAQ user application; the plurality of mini-driver primitives each performing a portion of controlling the DAQ device, col 27, ln 25-30 ), the selected image acquisition device to allow the user to communication with the selected image acquisition device( col 3, ln 34-40/ col 11, ln 1-5).

**As to claim 11**, Brumley teaches associating the image acquisition engine with a driver adapter for communicating with the interface of the selected image acquisition device (col 3, ln 34-40).

**As to claim 12**, Brumley teaches selecting the image acquisition device from a plurality of image acquisition devices associated with electronic device (col 11, ln 1-5).

**As to claim 13**, Brumley teaches abstracting a representation of the selected image acquisition device for use in establishing the second communication link by using the information provided by the driver (col 27, ln 29-33).

**As to claim 14**, Brumley teaches rending on a display device of the electronic device a user interface for use by the user for interfacing with the image acquisition engine, (col 7, ln 24-34).

**As to claim 19**, Brumley teaches requesting the image acquisition engine to determine each interface associated with an image acquisition device installed an accessible to image engine, (col 3, ln 34-40).

**As to claim 20**, Brumley teaches determine each interface associated with an image acquisition engine installed an accessible to image engine (col 3, ln 34-40).

**As to claim 21**, Brumley teaches one or more image acquisition device types (col 3, ln 48-52).

**As to claim 22**, Brumley teaches providing the image acquisition engine with one or more request for configuring the selected image acquisition device (col 3, ln 55-67).

**As to claim 23**, Brumley teaches configuring the selected image acquisition device based on each provided request (col col 11, ln 1-6).

**As to claim 24**, Brumley teaches configuring a type of image acquisition based on each provided request (col 11, ln 1-6).

**As to claim 25**, Brumley teaches the type of image acquisition comprises still image acquisition (col 11, ln 1-6).

**As to claim 30**, Brumley teaches the image acquisition engine is capable of feeding to the user one or more live images from the selected image acquisition device (col 7, ln 24-30).

**As to claims 32-42**, they are apparatus claims of claims 1-14; therefore, they are rejected for the same reasons as claims 1-14 above.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims **15, 16, 18, 26-29, 43-44, 46** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brumley et al (US. Patent 5,926,775) in view of MacDonald (US 6,614,916 B2).

As to **claim 15**, Brumley does not teach triggering the image acquisition device on a selected event to acquire one or more image. However, MacDonald teaches image acquisition device on a selected event to acquire one or more image (machine vision system 100 triggers acquisition of a full frame image of a feature of interest 112 when the feature 112 is within the field of view 114 of video camera 102, col 4, ln 44-48).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Brumley with MacDonald to incorporate the feature of image acquisition device on a selected event to acquire one or more image because this avoids at least some of the difficulties associated with conventional triggering methods.

As to **claim 16**, MacDonald teaches previewing one of more images from the image acquisition device before, while or after the triggering of the image acquisition device occurs (col 3, ln 25-36).

As to **claim 18**, MacDonald teaches identifying a region of interest for an image acquired by the image acquisition device (col 6, ln 5-11).

As to **claims 26, 27, 28, 29**, MacDonald teaches image acquired in a sequence, number of images a single image, a plurality of images (col 4, ln 5-60/ col 3, ln 1-3/ col 4, ln 40-45/ col 5, ln 1-5).

**As to claims 43, 44, 46**, they are apparatus claims of claims 15, 16, 18; therefore, they are rejected for the same reasons as claims 15-16, 18 above.

4. Claims **31, 17, 45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Brumley et al (US. Patent 5,926775) in view of Casini (US. Patent 5,201027).

**As to claim 31**, Brumley does not teach defining a color space for the images acquired by the image acquisition device. However, Casini teaches defining a color space for the images acquired by the image acquisition device (select the fundamental colors, change them and partially superimpose them, with simultaneous on screen display or printout on paper, col 3, ln 23-26).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the teaching of Brumley with Casini to incorporate the feature of defining a color space for the images acquired by the image acquisition device because this allows the system to perform possible variations in the design and in the number of colors which simultaneously direct on-screen display.

**As to claim 17**, Casini teaches images from the image acquisition device on a display (col 3, ln 39-43).

**As to claim 45**, it is an apparatus claim of claim 17; therefore, it is rejected for the same reason as claim 17 above.

***Conclusion***



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is ( 571) 272 3767. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomson, William can be reached on (571) 272 3718. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

September 17, 2007

  
WILLIAM THOMSON  
SUPERVISOR EXAMINER